## WHAT IS CLAIMED IS:

1. A glycopeptide compound having at least one substituent of the formula:

$$-R^{a}-Y-R^{b}-(Z)$$

5 wherein

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each R<sup>a</sup> is independently selected from the group consisting of alkylene, substituted alkylene, alkenylene, substituted alkynylene and substituted alkynylene;

each R<sup>b</sup> is independently selected from the group consisting of a covalent bond, alkylene, substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene, provided R<sup>b</sup> is not a covalent bond when Z is hydrogen;

each Y is independently selected from the group consisting of oxygen, sulfur, -S-S-,  $-NR^c-$ , -S(O)-,  $-SO_2-$ ,  $-NR^cC(O)-$ , -OC(O)-,  $-NR^cSO_2-$ ,  $-OSO_2-$ ,  $-C(O)NR^c-$ , -C(O)O-,  $-SO_2NR^c-$ ,  $-SO_2O-$ ,  $-P(O)(OR^c)O-$ ,  $-P(O)(OR^c)NR^c-$ ,  $-OP(O)(OR^c)O-$ ,  $-OP(O)(OR^c)NR^c-$ , -OC(O)O-,  $-NR^cC(O)O-$ ,  $-NR^cC(O)NR^c-$ ,  $-OC(O)NR^c-$  and  $-NR^cSO_2NR^c-$ ;

each Z is independently selected from hydrogen, aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocyclic;

each R<sup>c</sup> is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, substituted cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and -C(O)R<sup>d</sup>;

each R<sup>d</sup> is independently selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,

cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

x is 1 or 2;

and pharmaceutically acceptable salts thereof;

5 provided that:

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- (i) when Y is -NR<sup>c</sup>-, R<sup>c</sup> is alkyl of 1 to 4 carbon atoms, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
- (ii) when Y is -C(O)NR<sup>c</sup>-, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
- (iii) when Y is sulfur, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 7 carbon atoms; and
  - (iv) when Y is oxygen, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 11 carbon atoms.
- 2. The compound of Claim 1, wherein the glycopeptide compound is substituted with from 1 to 3 substituents of the formula  $-R^a-Y-R^b-(Z)_x$ .
  - 3. The compound of Claim 2, wherein each R<sup>a</sup> is independently selected from alkylene having from 1 to 10 carbon atoms.
    - 4. The compound of Claim 3, wherein R<sup>a</sup> is ethylene or propylene.
- 5. The compound of Claim 2, wherein Z is hydrogen and R<sup>b</sup> is alkylene of from 8 to 12 carbon atoms.
  - 6. The compound of Claim 5, wherein  $R^b$  and Z form an n-octyl, n-nonyl, n-decyl, n-undecyl or n-dodecyl group.

- 7. The compound of Claim 2, wherein Z is aryl, cycloalkyl, cycloalkenyl, heteroaryl or heterocyclic and R<sup>b</sup> is a covalent bond or alkylene of from 1 to 10 carbon atoms.
- 8. The compound of Claim 7, wherein Z is aryl and  $R^b$  is a covalent bond, methylene,  $-(CH_2)_6$ ,  $-(CH_2)_7$ ,  $-(CH_2)_8$ ,  $-(CH_2)_9$  or  $-(CH_2)_{10}$ -.
  - 9. The compound of Claim 2, wherein each Y is independently selected from the group consisting of oxygen, sulfur, -S-S-, -NR<sup>c</sup>-, -S(O)-, -SO<sub>2</sub>-, -NR<sup>c</sup>C(O)-, -OC(O)-, -NR<sup>c</sup>SO<sub>2</sub>-, -C(O)NR<sup>c</sup>-, -C(O)O- and -SO<sub>2</sub>NR<sup>c</sup>-.
- 10 The compound of Claim 9, wherein Y is oxygen, sulfur, -NR<sup>c</sup>- or -NR<sup>c</sup>SO<sub>2</sub>-.
  - 11. The compound of Claim 2, wherein each Z is independently selected from hydrogen, aryl, cycloalkyl, heteroaryl and heterocyclic.
    - 12. The compound of Claim 11, wherein Z is hydrogen or aryl.
- 15 13. The compound of Claim 12, wherein Z is phenyl, substituted phenyl, biphenyl, substituted biphenyl or terphenyl.
  - 14. The compound of Claim 2, wherein the  $-R^a-Y-R^b-(Z)_x$  group is selected from the group consisting of:
    - -CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;
- 20  $-CH_2CH_2CH_2-NH-(CH_2)_8CH_3$ ;
  - -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;
  - -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;

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-CH_2CH_2-NHSO_2-(CH_2)_{11}CH_3;
                   -CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;
                   -CH_2CH_2-S-(CH_2)_9CH_3;
                   -CH_2CH_2-S-(CH_2)_{10}CH_3;
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                   -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;
                   -CH_2CH_2CH_2-S-(CH_2)_9CH_3;
                   -CH_2CH_2CH_2-S-(CH_2)_3-CH=CH-(CH_2)_4CH_3 (trans);
                   -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;
                   -CH_2CH_2-S(O)-(CH_2)_9CH_3;
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                   -CH_2CH_2-S-(CH_2)_6Ph;
                   -CH_2CH_2-S-(CH_2)_8Ph;
                   -CH_2CH_2CH_2-S-(CH_2)_8Ph;
                   -CH_2CH_2-NH-CH_2-4-(4-Cl-Ph)-Ph;
                   -CH_2CH_2-NH-CH_2-4-[4-CH_3)_2CHCH_2-]-Ph;
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                   -CH_2CH_2-NH-CH_2-4-(4-CF_3-Ph)-Ph;
                   -CH_2CH_2-S-CH_2-4-(4-Cl-Ph)-Ph;
                   -CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
                   -CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                   -CH_2CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
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                   -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-[3,4-di-Cl-PhCH<sub>2</sub>O-)-Ph;
                   -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-CH<sub>2</sub>-4-[4-(4-Ph)-Ph]-Ph;
                   -CH_2CH_2CH_2-NHSO_2-CH_2-4-(4-Cl-Ph)-Ph;
                   -CH_2CH_2CH_2-NHSO_2-CH_2-4-(Ph-C=C-)-Ph;
                   -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(4-Cl-Ph)-Ph; and
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                   -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(naphth-2-yl)-Ph.
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## 15. A compound of formula I:

## wherein

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 $R^1$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and  $-R^a-Y-R^b-(Z)_x$ ; or a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ ;

 $R^2$  is hydrogen or a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x;$ 

 $R^3$  is  $-OR^c$ ,  $-NR^cR^c$ ,  $-O-R^a-Y-R^b-(Z)_x$ ,  $-NR^c-R^a-Y-R^b-(Z)_x$ ,  $-NR^cR^c$ , or  $-O-R^c$ ;

 $R^4$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,  $-R^a-Y-R^b-(Z)_x$ ,  $-C(O)R^d$  and a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ ;

 $R^5$  is selected from the group consisting of hydrogen, halo,  $-CH(R^c)-NR^cR^c$ ,  $-CH(R^c)-NR^cR^c$  and  $-CH(R^c)-NR^c-R^a-Y-R^b-(Z)_x$ ;

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 $R^6$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,  $-R^a-Y-R^b-(Z)_x$ ,  $-C(O)R^d$  and a saccharide group optionally substituted with  $-NR^c-R^a-Y-R^b-(Z)_x$ , or  $R^5$  and  $R^6$  can be joined, together with the atoms to which they are attached, form a heterocyclic ring optionally substituted with  $-NR^c-R^a-Y-R^b-(Z)_x$ ;

 $R^7$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,  $-R^a-Y-R^b-(Z)_x$ , and  $-C(O)R^d$ ;

R<sup>8</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

R<sup>9</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

R<sup>10</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic; or R<sup>8</sup> and R<sup>10</sup> are joined to form -Ar<sup>1</sup>-O-Ar<sup>2</sup>-, where Ar<sup>1</sup> and Ar<sup>2</sup> are independently arylene or heteroarylene;

R<sup>11</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic, or R<sup>10</sup> and R<sup>11</sup> are joined, together with the carbon and nitrogen atoms to which they are attached, to form a heterocyclic ring;

 $R^{12}$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic,  $-C(O)R^d$ ,  $-C(NH)R^d$ ,  $-C(O)NR^cR^c$ ,  $-C(O)OR^d$ ,  $-C(NH)NR^cR^c$  and  $-R^a-Y-R^b-(Z)_x$ , or  $R^{11}$  and  $R^{12}$  are joined, together with the nitrogen atom to which they are attached, to form a heterocyclic ring;

R<sup>13</sup> is selected from the group consisting of hydrogen or -OR<sup>14</sup>;

R<sup>14</sup> is selected from hydrogen, -C(O)R<sup>d</sup> and a saccharide group;

each R<sup>a</sup> is independently selected from the group consisting of alkylene,
substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene;

each R<sup>b</sup> is independently selected from the group consisting of a covalent bond, alkylene, substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene, provided R<sup>b</sup> is not a covalent bond when Z is hydrogen;

each R<sup>c</sup> is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and -C(O)R<sup>d</sup>;

each R<sup>d</sup> is independently selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

R° is a saccharide group;

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 $X^1$ ,  $X^2$  and  $X^3$  are independently selected from hydrogen or chloro; each Y is independently selected from the group consisting of oxygen, sulfur, -S-S-,  $-NR^c-$ , -S(O)-,  $-SO_2-$ ,  $-NR^cC(O)-$ ,  $-OSO_2-$ , -OC(O)-,  $-NR^cSO_2-$ ,  $-C(O)NR^c-$ , -C(O)O-,  $-SO_2NR^c-$ ,  $-SO_2O-$ ,  $-P(O)(OR^c)O-$ ,

- $-P(O)(OR^c)NR^c-$ ,  $-OP(O)(OR^c)O-$ ,  $-OP(O)(OR^c)NR^c-$ , -OC(O)O-,
- -NR°C(O)O-, -NR°C(O)NR°-, -OC(O)NR°- and -NR°SO<sub>2</sub>NR°-;

each Z is independently selected from hydrogen, aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocyclic;

5 n is 0, 1 or 2;

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x is 1 or 2;

and pharmaceutically acceptable salts, stereoisomers and prodrugs thereof; provided that at least one of R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup>, R<sup>6</sup>, R<sup>7</sup> or R<sup>12</sup> has a substitutent of the formula -R<sup>a</sup>-Y-R<sup>b</sup>-(Z)<sub>x</sub>;

and further provided that:

- (i) when Y is -NR<sup>c</sup>-, R<sup>c</sup> is alkyl of 1 to 4 carbon atoms, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
- (ii) when Y is -C(O)NR<sup>c</sup>-, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
- (iii) when Y is sulfur, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 7 carbon atoms; and
  - (iv) when Y is oxygen, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 11 carbon atoms.
- The compound of Claim 15, wherein  $R^1$  is a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ .
  - 17. The compound of Claim 16, wherein R<sup>1</sup> is a saccharide group of the formula:

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 $R^{15}$  is  $-R^a-Y-R^b-(Z)_x$ ; and

R<sup>16</sup> is hydrogen or methyl.

18. The compound of Claim 17, wherein  $R^{15}$  is a  $-R^a-Y-R^b-(Z)_x$  group selected from the group consisting of:

- -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;
- -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;
- -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;
- 10 -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>;
  - -CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;
  - $-CH_{2}CH_{2}-S-(CH_{2})_{9}CH_{3};$
  - $-CH_2CH_2-S-(CH_2)_{10}CH_3;$
  - $-CH_{2}CH_{2}CH_{2}-S-(CH_{2})_{8}CH_{3};\\$
- 15  $-CH_2CH_2CH_2-S-(CH_2)_9CH_3$ ;
  - $-CH_2CH_2CH_2-S-(CH_2)_3-CH=CH-(CH_2)_4CH_3$  (trans);
  - $-CH_{2}CH_{2}CH_{2}-S-(CH_{2})_{7}CH_{3};$
  - -CH<sub>2</sub>CH<sub>2</sub>-S(O)-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;
  - $-CH_2CH_2-S-(CH_2)_6Ph;$

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-CH_2CH_2-S-(CH_2)_8Ph;
                      -CH_2CH_2CH_2-S-(CH_2)_8Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-[4-CH<sub>3</sub>)<sub>2</sub>CHCH<sub>2</sub>-]-Ph;
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                      -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-(4-CF<sub>3</sub>-Ph)-Ph;
                      -CH_2CH_2-S-CH_2-4-(4-Cl-Ph)-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>-S(O)-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph:
                      -CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                      -CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
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                      -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-[3,4-di-Cl-PhCH<sub>2</sub>O-)-Ph;
                      -CH_2CH_2-NHSO_2-CH_2-4-[4-(4-Ph)-Ph]-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                      -CH_2CH_2CH_2-NHSO_2-CH_2-4-(Ph-C=C-)-Ph;
                     -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(4-Cl-Ph)-Ph; and
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                     -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(naphth-2-yl)-Ph.
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- 19. The compound of Claim 15, wherein R<sup>3</sup> is -OH or -NR<sup>c</sup>R<sup>c</sup>.
- 20. The compound of Claim 15, wherein R<sup>5</sup> is hydrogen, -CH<sub>2</sub>-N-(N-CH<sub>3</sub>-D-glucamine); -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>5</sub>-COOH; and -CH<sub>2</sub>-N-(2-amino-2-deoxygluconic acid).
  - 21. The compound of Claim 15, wherein R<sup>8</sup> is -CH<sub>2</sub>C(O)NH<sub>2</sub>, -CH<sub>2</sub>COOH, benzyl, 4-hydroxyphenyl or 3-chloro-4-hydroxyphenyl.
  - 22. The compound of Claim 15, wherein R<sup>9</sup> is hydrogen and R<sup>11</sup> is hydrogen or methyl.

- 23. The compound of Claim 22, wherein  $R^{10}$  is alkyl or substituted alkyl.
- 24. The compound of Claim 23, wherein  $R^{12}$  is hydrogen, alkyl, substituted alkyl or  $-C(O)R^d$ .
- 25. The compound of Claim 24, wherein n is 1.
  - 26. A compound of formula II:

HO 
$$R^{21}$$
  $CI$   $R^{26}$   $R^{27}$   $R^{27}$   $R^{22}$   $R^{23}$   $R^{23}$   $R^{24}$   $R^{25}$   $R^{27}$   $R^{27}$   $R^{28}$   $R^{29}$   $R^$ 

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 $R^{21}$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and  $-R^a-Y-R^b-(Z)_x$ ; or a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ ;

 $R^{22}$  is  $-OR^c$ ,  $-NR^cR^c$ ,  $-O-R^a-Y-R^b-(Z)_x$  or  $-NR^c-R^a-Y-R^b-(Z)_x$ ;  $R^{23}$  is selected from the group consisting of hydrogen, halo,  $-CH(R^c)-NR^cR^c$ ,  $-CH(R^c)-R^e$  and  $-CH(R^c)-NR^c-R^a-Y-R^b-(Z)_x$ ;

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R<sup>24</sup> is selected from the group consisting of hydrogen and lower alkyl;

R<sup>25</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

R<sup>26</sup> is selected from the group consisting of hydrogen and lower alkyl; or R<sup>25</sup> and R<sup>26</sup> are joined, together with the carbon and nitrogen atoms to which they are attached, to form a heterocyclic ring;

 $R^{27}$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic,  $-C(O)R^d$ ,  $-C(NH)R^d$ ,  $-C(O)NR^cR^c$ ,  $-C(O)OR^d$ ,  $-C(NH)NR^cR^c$  and  $-R^a-Y-R^b-(Z)_x$ , or  $R^{26}$  and  $R^{27}$  are joined, together with the nitrogen atom to which they are attached, to form a heterocyclic ring;

each R<sup>a</sup> is independently selected from the group consisting of alkylene, substituted alkylene, alkenylene, substituted alkynylene and substituted alkynylene;

each R<sup>b</sup> is independently selected from the group consisting of a covalent bond, alkylene, substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene, provided R<sup>b</sup> is not a covalent bond when Z is hydrogen;

each R<sup>c</sup> is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and -C(O)R<sup>d</sup>;

each R<sup>d</sup> is independently selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

5 Re is an aminosaccharide group;

each Y is independently selected from the group consisting of oxygen,

sulfur, 
$$-S-S-,-NR^c-,-S(O)-,-SO_2-,-NR^cC(O)-,-OSO_2-,-OC(O)-,$$

$$-NR^{c}SO_{2}-$$
,  $-C(O)NR^{c}-$ ,  $-C(O)O-$ ,  $-SO_{2}NR^{c}-$ ,  $-SO_{2}O-$ ,  $-P(O)(OR^{c})O-$ ,

$$-P(O)(OR^c)NR^{c-}$$
,  $-OP(O)(OR^c)O-$ ,  $-OP(O)(OR^c)NR^{c-}$ ,  $-OC(O)O-$ ,

10 -NR $^{c}C(O)O-$ , -NR $^{c}C(O)NR^{c}-$ , -OC $(O)NR^{c}-$  and -NR $^{c}SO_{2}NR^{c}-$ ;

each Z is independently selected from hydrogen, aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocyclic;

n is 0, 1 or 2;

x is 1 or 2;

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and pharmaceutically acceptable salts, stereoisomers and prodrugs thereof; provided that at least one of  $R^{21}$ ,  $R^{22}$ ,  $R^{23}$  or  $R^{27}$  has a substitutent of the formula  $-R^a-Y-R^b-(Z)_x$ ;

and further provided that:

- (i) when Y is -NR<sup>c</sup>-, R<sup>c</sup> is alkyl of 1 to 4 carbon atoms, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
  - (ii) when Y is -C(O)NR<sup>c</sup>-, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
  - (iii) when Y is sulfur, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 7 carbon atoms; and
- 25 (iv) when Y is oxygen, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 11 carbon atoms.
  - 27. The compound of Claim 26, wherein  $\mathbb{R}^{21}$  is a saccharide group of the formula:

 $R^{15}$  is  $-R^a-Y-R^b-(Z)_x$ , and

R<sup>16</sup> is hydrogen or methyl.

28. The compound of Claim 27, wherein  $R^{15}$  is a  $-R^a-Y-R^b-(Z)_x$  group

5 selected from the group consisting of:

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-CH_2CH_2-NH-(CH_2)_9CH_3;
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$$-CH_2CH_2CH_2-NH-(CH_2)_8CH_3;$$

$$-CH_2CH_2CH_2-NH-(CH_2)_7CH_3$$
;

$$-CH_2CH_2-NHSO_2-(CH_2)_9CH_3$$
;

10 
$$-CH_2CH_2-NHSO_2-(CH_2)_{11}CH_3$$
;

$$-CH_2CH_2-S-(CH_2)_8CH_3$$
;

$$-CH2CH2-S-(CH2)9CH3;$$

$$-CH_2CH_2CH_2-S-(CH_2)_8CH_3;$$

15 
$$-CH_2CH_2CH_2-S-(CH_2)_9CH_3$$
;

$$-CH_2CH_2CH_2-S-(CH_2)_3-CH=CH-(CH_2)_4CH_3$$
 (trans);

$$-CH_2CH_2CH_2CH_2-S-(CH_2)_7CH_3$$
;

$$-CH_2CH_2-S(O)-(CH_2)_9CH_3;$$

$$-CH_2CH_2-S-(CH_2)_6Ph;$$

$$-CH_2CH_2-S-(CH_2)_8Ph;$$

```
-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-[4-CH<sub>3</sub>)<sub>2</sub>CHCH<sub>2</sub>-]-Ph;
                      -CH_2CH_2-NH-CH_2-4-(4-CF_3-Ph)-Ph;
 5
                      -CH_2CH_2-S-CH_2-4-(4-Cl-Ph)-Ph;
                      -CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                      -CH_2CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-[3,4-di-Cl-PhCH<sub>2</sub>O-)-Ph;
10
                      -CH_2CH_2-NHSO_2-CH_2-4-[4-(4-Ph)-Ph]-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                      -CH_2CH_2CH_2-NHSO_2-CH_2-4-(Ph-C=C-)-Ph;
                      -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(4-Cl-Ph)-Ph; and
                      -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(naphth-2-yl)-Ph.
```

- 15 29. The compound of Claim 26, wherein R<sup>22</sup> is -OH or -NR<sup>c</sup>R<sup>c</sup>.
  - 30. The compound of Claim 26, wherein R<sup>23</sup> is hydrogen, -CH<sub>2</sub>-N-(N-CH<sub>3</sub>-D-glucamine); -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>5</sub>-COOH; or -CH<sub>2</sub>-N-(2-amino-2-deoxygluconic acid).
- 31. The compound of Claim 26, wherein  $R^{24}$  is hydrogen and  $R^{26}$  is hydrogen or methyl.
  - 32. The compound of Claim 31, wherein R<sup>25</sup> is alkyl or substituted alkyl.
    - 33. The compound of Claim 32, wherein  $R^{25}$  is isobutyl.

- 34. The compound of Claim 33, wherein  $R^{27}$  is hydrogen, alkyl, substituted alkyl or  $-C(O)R^d$ .
- 35. A compound shown in any of Tables I, II, III, IV, V or VI, or a pharmaceutically-acceptable salt thereof.
- 36. A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and a therapeutically effective amount of a glycopeptide compound having at least one substituent of the formula:

$$-R^a-Y-R^b-(Z)$$

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each R<sup>a</sup> is independently selected from the group consisting of alkylene, substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene;

each R<sup>b</sup> is independently selected from the group consisting of a covalent bond, alkylene, substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene, provided R<sup>b</sup> is not a covalent bond when Z is hydrogen;

each Y is independently selected from the group consisting of oxygen, sulfur, -S-S-,  $-NR^c-$ , -S(O)-,  $-SO_2-$ ,  $-NR^cC(O)-$ , -OC(O)-,  $-NR^cSO_2-$ ,  $-OSO_2-$ ,  $-C(O)NR^c-$ , -C(O)O-,  $-SO_2NR^c-$ ,  $-SO_2O-$ ,  $-P(O)(OR^c)O-$ ,

 $-P(O)(OR^c)NR^c-, \ -OP(O)(OR^c)O-, -OP(O)(OR^c)NR^c-, \ -OC(O)O-, \ -OP(O)(OR^c)NR^c-, \ -OO(O)O-, \ -OO(O)O-,$ 

-NR°C(O)O-, -NR°C(O)NR°-, -OC(O)NR°- and -NR°SO $_2$ NR°-;

each Z is independently selected from hydrogen, aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocyclic;

each R<sup>c</sup> is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,

cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and -C(O)R<sup>d</sup>;

each R<sup>d</sup> is independently selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

x is 1 or 2;

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and pharmaceutically acceptable salts thereof; provided that:

- 10 (i) when Y is -NR<sup>c</sup>-, R<sup>c</sup> is alkyl of 1 to 4 carbon atoms, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
  - (ii) when Y is -C(O)NR<sup>c</sup>-, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
  - (iii) when Y is sulfur, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 7 carbon atoms; and
  - (iv) when Y is oxygen, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 11 carbon atoms.
- 37. The pharmaceutical composition of Claim 36, wherein the glycopeptide compound is substituted with from 1 to 3 substituents of the formula  $-R^a-Y-R^b-(Z)_x.$ 
  - 38. The pharmaceutical composition of Claim 37, wherein each R<sup>a</sup> is independently selected from alkylene having from 1 to 10 carbon atoms.
  - 39. The pharmaceutical composition of Claim 38, wherein R<sup>a</sup> is ethylene or propylene.

- 40. The pharmaceutical composition of Claim 37, wherein Z is hydrogen and R<sup>b</sup> is alkylene of from 8 to 12 carbon atoms.
- 41. The pharmaceutical composition of Claim 40, wherein  $R^b$  and Z form an n-octyl, n-nonyl, n-decyl, n-undecyl or n-dodecyl group.

- 5 42. The pharmaceutical composition of Claim 37, wherein Z is aryl, cycloalkyl, cycloalkenyl, heteroaryl or heterocyclic and R<sup>b</sup> is a covalent bond or alkylene of from 1 to 10 carbon atoms.
- 43. The pharmaceutical composition of Claim 42, wherein Z is aryl and R<sup>b</sup> is a covalent bond, methylene, -(CH<sub>2</sub>)<sub>6</sub>-, -(CH<sub>2</sub>)<sub>7</sub>-, -(CH<sub>2</sub>)<sub>8</sub>-, -(CH<sub>2</sub>)<sub>9</sub>- or -(CH<sub>2</sub>)<sub>10</sub>-.
  - 44. The pharmaceutical composition of Claim 37, wherein each Y is independently selected from the group consisting of oxygen, sulfur, -S-S-, -NR<sup>c</sup>-, -S(O)-, -SO<sub>2</sub>-, -NR<sup>c</sup>C(O)-, -OC(O)-, -NR<sup>c</sup>SO<sub>2</sub>-, -C(O)NR<sup>c</sup>-, -C(O)O- and -SO<sub>2</sub>NR<sup>c</sup>-.
- 15 45. The pharmaceutical composition of Claim 44, wherein Y is oxygen, sulfur,  $-NR^c-$  or  $-NR^cSO_2-$ .
  - 46. The pharmaceutical composition of Claim 37, wherein each Z is independently selected from hydrogen, aryl, cycloalkyl, heteroaryl and heterocyclic.
- 20 47. The pharmaceutical composition of Claim 46, wherein Z is hydrogen or aryl.

- 48. The pharmaceutical composition of Claim 47, wherein Z is phenyl, substituted phenyl, biphenyl, substituted biphenyl or terphenyl.
- 49. The pharmaceutical composition of Claim 37, wherein the  $-R^a-Y-R^b-(Z)_x$  group is selected from the group consisting of:

```
-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;
  5
                           -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;
                           -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;
                           -CH_2CH_2-NHSO_2-(CH_2)_9CH_3;
                           -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>;
10
                           -CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;
                           -CH_2CH_2-S-(CH_2)_9CH_3;
                           -CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub>;
                           -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;
                           -CH_2CH_2CH_2-S-(CH_2)_9CH_3;
15
                           -CH_2CH_2CH_2-S-(CH_2)_3-CH=CH-(CH_2)_4CH_3 (trans);
                           -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;
                           -CH<sub>2</sub>CH<sub>2</sub>-S(O)-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;
                           -CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>6</sub>Ph;
                           -CH_2CH_2-S-(CH_2)_8Ph;
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                           -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>Ph;
                           -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                           -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-[4-CH<sub>3</sub>)<sub>2</sub>CHCH<sub>2</sub>-]-Ph;
                           -CH_2CH_2-NH-CH_2-4-(4-CF_3-Ph)-Ph;
                           -CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
25
                           -CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
                           -CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                           -CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
                           -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-[3,4-di-Cl-PhCH<sub>2</sub>O-)-Ph;
```

$$-CH_2CH_2CH_2-NHSO_2-CH_2-4-(Ph-C=C-)-Ph;$$

 $-CH_2CH_2CH_2-NHSO_2-4-(naphth-2-yl)-Ph.$ 

50. A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and a therapeutically effective amount of a compound of formula I:

10 wherein

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 $R^1$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and  $-R^a-Y-R^b-(Z)_x$ ; or a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ ;

 $R^2$  is hydrogen or a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)$ ;

 $R^{3} \ is \ -OR^{c}, \ -NR^{c}R^{c}, \ -O-R^{a}-Y-R^{b}-(Z)_{x}, \ -NR^{c}-R^{a}-Y-R^{b}-(Z)_{x}, \ -NR^{c}R^{e}, \ or \ -O-R^{e} \ ;$ 

 $R^4$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl,  $-R^a-Y-R^b-(Z)_x$ ,  $-C(O)R^d$  and a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ ;

R<sup>5</sup> is selected from the group consisting of hydrogen, halo,

$$-CH(R^c)-NR^cR^c$$
,  $-CH(R^c)-NR^cR^e$  and  $-CH(R^c)-NR^c-R^a-Y-R^b-(Z)_x$ ;

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 $R^6$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,  $-R^a-Y-R^b-(Z)_x$ ,  $-C(O)R^d$  and a saccharide group optionally substituted with  $-NR^c-R^a-Y-R^b-(Z)_x$ , or  $R^5$  and  $R^6$  can be joined, together with the atoms to which they are attached, form a heterocyclic ring optionally substituted with  $-NR^c-R^a-Y-R^b-(Z)_x$ ;

 $R^7$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,  $-R^a-Y-R^b-(Z)_x$ , and  $-C(O)R^d$ ;

R<sup>8</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

R<sup>9</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

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R<sup>10</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and

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heterocyclic; or  $R^8$  and  $R^{10}$  are joined to form  $-Ar^1-O-Ar^2-$ , where  $Ar^1$  and  $Ar^2$  are independently arylene or heteroarylene;

R<sup>11</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic, or R<sup>10</sup> and R<sup>11</sup> are joined, together with the carbon and nitrogen atoms to which they are attached, to form a heterocyclic ring;

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 $R^{12}$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic,  $-C(O)R^d$ ,  $-C(NH)R^d$ ,  $-C(O)NR^cR^c$ ,  $-C(O)OR^d$ ,  $-C(NH)NR^cR^c$  and  $-R^a-Y-R^b-(Z)_x$ , or  $R^{11}$  and  $R^{12}$  are joined, together with the nitrogen atom to which they are attached, to form a heterocyclic ring;

R<sup>13</sup> is selected from the group consisting of hydrogen or -OR<sup>14</sup>;

R<sup>14</sup> is selected from hydrogen, -C(O)R<sup>d</sup> and a saccharide group;

each R<sup>a</sup> is independently selected from the group consisting of alkylene,
substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted
alkynylene;

each R<sup>b</sup> is independently selected from the group consisting of a covalent bond, alkylene, substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene, provided R<sup>b</sup> is not a covalent bond when Z is hydrogen;

each R<sup>c</sup> is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and -C(O)R<sup>d</sup>;

each R<sup>d</sup> is independently selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl,

cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

Re is a saccharide group;

X<sup>1</sup>, X<sup>2</sup> and X<sup>3</sup> are independently selected from hydrogen or chloro; each Y is independently selected from the group consisting of oxygen,

sulfur, -S-S-,  $-NR^{c}-$ , -S(O)-,  $-SO_{2}-$ ,  $-NR^{c}C(O)-$ ,  $-OSO_{2}-$ , -OC(O)-,

 $-NR^{c}SO_{2}-$ ,  $-C(O)NR^{c}-$ , -C(O)O-,  $-SO_{2}NR^{c}-$ ,  $-SO_{2}O-$ ,  $-P(O)(OR^{c})O-$ ,

 $-P(O)(OR^c)NR^c-$ ,  $-OP(O)(OR^c)O-$ ,  $-OP(O)(OR^c)NR^c-$ , -OC(O)O-,

-NR°C(O)O-, -NR°C(O)NR°-, -OC(O)NR°- and -NR°SO<sub>2</sub>NR°-;

each Z is independently selected from hydrogen, aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocyclic;

n is 0, 1 or 2;

x is 1 or 2;

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and pharmaceutically acceptable salts, stereoisomers and prodrugs thereof; provided that at least one of  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$ ,  $R^7$  or  $R^{12}$  has a substitutent of the formula  $-R^a-Y-R^b-(Z)_x$ ;

and further provided that:

- (i) when Y is -NR<sup>c</sup>-, R<sup>c</sup> is alkyl of 1 to 4 carbon atoms, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
- (ii) when Y is -C(O)NR<sup>c</sup>-, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
  - (iii) when Y is sulfur, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 7 carbon atoms; and
- (iv) when Y is oxygen, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 11 carbon atoms.
  - 51. The pharmaceutical composition of Claim 50, wherein  $R^1$  is a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ .

52. The pharmaceutical composition of Claim 51, wherein R<sup>1</sup> is a saccharide group of the formula:

wherein

$$R^{15}$$
 is  $-R^a-Y-R^b-(Z)_x$ ; and

5 R<sup>16</sup> is hydrogen or methyl.

53. The pharmaceutical composition of Claim 52, wherein  $R^{15}$  is a  $-R^a-Y-R^b-(Z)_x$  group selected from the group consisting of:

- -CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;
- $-CH_2CH_2CH_2-NH-(CH_2)_8CH_3;$
- 10  $-CH_2CH_2CH_2-NH-(CH_2)_7CH_3$ ;
  - $-CH_2CH_2-NHSO_2-(CH_2)_9CH_3;$
  - -CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>;
  - $-CH_2CH_2-S-(CH_2)_8CH_3$ ;
  - $-CH_2CH_2-S-(CH_2)_9CH_3$ ;
- 15  $-CH_2CH_2-S-(CH_2)_{10}CH_3$ ;
  - $-CH_2CH_2CH_2-S-(CH_2)_8CH_3;$
  - $-CH_2CH_2CH_2-S-(CH_2)_9CH_3;$
  - $-CH_2CH_2CH_2-S-(CH_2)_3-CH=CH-(CH_2)_4CH_3$  (trans);
  - -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;

```
-CH_2CH_2-S(O)-(CH_2)_9CH_3;
                       -CH_2CH_2-S-(CH_2)_6Ph;
                       -CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>Ph;
                       -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>Ph;
 5
                       -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                       -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-[4-CH<sub>3</sub>)<sub>2</sub>CHCH<sub>2</sub>-]-Ph;
                       -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-(4-CF<sub>3</sub>-Ph)-Ph;
                       -CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                       -CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
10
                       -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                       -CH_2CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
                       -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-[3,4-di-Cl-PhCH<sub>2</sub>O-)-Ph;
                       -CH_2CH_2-NHSO_2-CH_2-4-[4-(4-Ph)-Ph]-Ph;
                       -CH_2CH_2CH_2-NHSO_2-CH_2-4-(4-Cl-Ph)-Ph;
15
                       -CH_2CH_2CH_2-NHSO_2-CH_2-4-(Ph-C=C-)-Ph;
                       -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(4-Cl-Ph)-Ph; and
                       -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(naphth-2-yl)-Ph.
```

- 54. The pharmaceutical composition of Claim 50, wherein R³ is -OH or -NR°R°.
- 55. The pharmaceutical composition of Claim 50, wherein R<sup>5</sup> is hydrogen, -CH<sub>2</sub>-N-(N-CH<sub>3</sub>-D-glucamine); -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>5</sub>-COOH; and -CH<sub>2</sub>-N-(2-amino-2-deoxygluconic acid).
- 56. The pharmaceutical composition of Claim 50, wherein R<sup>8</sup> is -CH<sub>2</sub>C(O)NH<sub>2</sub>, -CH<sub>2</sub>COOH, benzyl, 4-hydroxyphenyl or 3-chloro-4-hydroxyphenyl.

- 57. The pharmaceutical composition of Claim 50, wherein R<sup>9</sup> is hydrogen and R<sup>11</sup> is hydrogen or methyl.
- 58. The pharmaceutical composition of Claim 57, wherein  $R^{10}$  is alkyl or substituted alkyl.
- 5 59. The pharmaceutical composition of Claim 58, wherein R<sup>12</sup> is hydrogen, alkyl, substituted alkyl or -C(O)R<sup>d</sup>.
  - 60. The pharmaceutical composition of Claim 50, wherein n is 1.
- 61. A pharmaceutical composition comprising a pharmaceutically-acceptable carrier and a therapeutically effective amount of a compound of formula II:

HO 
$$R^{21}$$
  $R^{26}$   $R^{26}$   $R^{27}$   $R^{27}$   $R^{22}$   $R^{23}$   $R^{23}$   $R^{24}$   $R^{25}$   $R^{27}$   $R^{27}$ 

 $R^{21}$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkenyl, alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and  $-R^a-Y-R^b-(Z)_x$ ; or a saccharide group optionally substituted with  $-R^a-Y-R^b-(Z)_x$ ;

$$R^{22}$$
 is  $-OR^{c}$ ,  $-NR^{c}R^{c}$ ,  $-O-R^{a}-Y-R^{b}-(Z)_{x}$  or  $-NR^{c}-R^{a}-Y-R^{b}-(Z)_{x}$ ;

R<sup>23</sup> is selected from the group consisting of hydrogen, halo,

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$$-CH(R^c)-NR^cR^c$$
,  $-CH(R^c)-R^c$  and  $-CH(R^c)-NR^c-R^a-Y-R^b-(Z)_x$ ;

R<sup>24</sup> is selected from the group consisting of hydrogen and lower alkyl;

R<sup>25</sup> is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

 $R^{26}$  is selected from the group consisting of hydrogen and lower alkyl; or  $R^{25}$  and  $R^{26}$  are joined, together with the carbon and nitrogen atoms to which they are attached, to form a heterocyclic ring;

 $R^{27}$  is selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic,  $-C(O)R^d$ ,  $-C(NH)R^d$ ,  $-C(O)NR^cR^c$ ,  $-C(O)OR^d$ ,  $-C(NH)NR^cR^c$  and  $-R^a-Y-R^b-(Z)_x$ , or  $R^{26}$  and  $R^{27}$  are joined, together with the nitrogen atom to which they are attached, to form a heterocyclic ring;

each R<sup>a</sup> is independently selected from the group consisting of alkylene, substituted alkylene, alkenylene, substituted alkynylene and substituted alkynylene;

each R<sup>b</sup> is independently selected from the group consisting of a covalent bond, alkylene, substituted alkylene, alkenylene, substituted alkenylene, alkynylene and substituted alkynylene, provided R<sup>b</sup> is not a covalent bond when Z is hydrogen;

each R<sup>c</sup> is independently selected from the group consisting of hydrogen, alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl, heterocyclic and -C(O)R<sup>d</sup>;

each R<sup>d</sup> is independently selected from the group consisting of alkyl, substituted alkyl, alkenyl, substituted alkynyl, substituted alkynyl, substituted alkynyl, cycloalkyl, substituted cycloalkyl, cycloalkenyl, substituted cycloalkenyl, aryl, heteroaryl and heterocyclic;

Re is an aminosaccharide group;

each Y is independently selected from the group consisting of oxygen, sulfur, -S-S-,-NR<sup>c</sup>-, -S(O)-, -SO<sub>2</sub>-, -NR<sup>c</sup>C(O)-, -OSO<sub>2</sub>-, -OC(O)-, -NR<sup>c</sup>SO<sub>2</sub>-, -C(O)NR<sup>c</sup>-, -C(O)O-, -SO<sub>2</sub>NR<sup>c</sup>-, -SO<sub>2</sub>O-, -P(O)(OR<sup>c</sup>)O-, -P(O)(OR<sup>c</sup>)NR<sup>c</sup>-, -OP(O)(OR<sup>c</sup>)O-, -OP(O)(OR<sup>c</sup>)NR<sup>c</sup>-, -OC(O)O-, -NR<sup>c</sup>C(O)O-, -NR<sup>c</sup>C(O)NR<sup>c</sup>-, -OC(O)NR<sup>c</sup>- and -NR<sup>c</sup>SO<sub>2</sub>NR<sup>c</sup>-; each Z is independently selected from hydrogen, aryl, cycloalkyl.

each Z is independently selected from hydrogen, aryl, cycloalkyl, cycloalkenyl, heteroaryl and heterocyclic;

n is 0, 1 or 2;

x is 1 or 2;

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and pharmaceutically acceptable salts, stereoisomers and prodrugs thereof; provided that at least one of  $R^{21}$ ,  $R^{22}$ ,  $R^{23}$  or  $R^{27}$  has a substitutent of the formula  $-R^a-Y-R^b-(Z)_x$ ;

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and further provided that:

- (i) when Y is -NR<sup>c</sup>-, R<sup>c</sup> is alkyl of 1 to 4 carbon atoms, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
- 25 (ii) when Y is -C(O)NR<sup>c</sup>-, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 5 carbon atoms;
  - (iii) when Y is sulfur, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 7 carbon atoms; and

- (iv) when Y is oxygen, Z is hydrogen and R<sup>b</sup> is alkylene, then R<sup>b</sup> contains at least 11 carbon atoms.
- 62. The pharmaceutical composition of Claim 61, wherein  $R^{21}$  is a saccharide group of the formula:

 $R^{15}$  is  $-R^a-Y-R^b-(Z)_x$ , and

R<sup>16</sup> is hydrogen or methyl.

63. The pharmaceutical composition of Claim 62, wherein  $R^{15}$  is a  $-R^a-Y-R^b-(Z)_x$  group selected from the group consisting of:

10  $-CH_2CH_2-NH-(CH_2)_9CH_3$ ;

 $-CH_2CH_2CH_2-NH-(CH_2)_8CH_3;$ 

-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;

-CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>;

-CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>;

15  $-CH_2CH_2-S-(CH_2)_8CH_3$ ;

 $-CH_2CH_2-S-(CH_2)_9CH_3;$ 

-CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>10</sub>CH<sub>3</sub>;

-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>CH<sub>3</sub>;

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-CH_2CH_2CH_2-S-(CH_2)_9CH_3;
                    -CH_2CH_2CH_2-S-(CH_2)_3-CH=CH-(CH_2)_4CH_3 (trans);
                    -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>7</sub>CH<sub>3</sub>;
                    -CH_2CH_2-S(O)-(CH_2)_9CH_3;
 5
                    -CH_2CH_2-S-(CH_2)_6Ph;
                    -CH<sub>2</sub>CH<sub>2</sub>-S-(CH<sub>2</sub>)<sub>8</sub>Ph;
                    -CH_2CH_2CH_2-S-(CH_2)_8Ph;
                    -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-(4-Cl-Ph)-Ph;
                    -CH<sub>2</sub>CH<sub>2</sub>-NH-CH<sub>2</sub>-4-[4-CH<sub>3</sub>)<sub>2</sub>CHCH<sub>2</sub>-]-Ph;
10
                    -CH_2CH_2-NH-CH_2-4-(4-CF_3-Ph)-Ph;
                    -CH_2CH_2-S-CH_2-4-(4-Cl-Ph)-Ph;
                    -CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
                   -CH_2CH_2CH_2-S-CH_2-4-(4-Cl-Ph)-Ph;
                    -CH_2CH_2CH_2-S(O)-CH_2-4-(4-Cl-Ph)-Ph;
15
                    -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-S-CH<sub>2</sub>-4-[3,4-di-Cl-PhCH<sub>2</sub>O-)-Ph;
                    -CH_2CH_2-NHSO_2-CH_2-4-[4-(4-Ph)-Ph]-Ph;
                    -CH_2CH_2CH_2-NHSO_2-CH_2-4-(4-Cl-Ph)-Ph;
                    -CH_2CH_2CH_2-NHSO_2-CH_2-4-(Ph-C\equiv C-)-Ph;
                    -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(4-Cl-Ph)-Ph; and
20
                    -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NHSO<sub>2</sub>-4-(naphth-2-yl)-Ph.
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- 64. The pharmaceutical composition of Claim 61, wherein R<sup>22</sup> is -OH or -NR<sup>c</sup>R<sup>c</sup>.
- 65. The pharmaceutical composition of Claim 61, wherein R<sup>23</sup> is hydrogen, -CH<sub>2</sub>-N-(N-CH<sub>3</sub>-D-glucamine); -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>9</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-CH<sub>2</sub>CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>11</sub>CH<sub>3</sub>; -CH<sub>2</sub>-NH-(CH<sub>2</sub>)<sub>5</sub>-COOH; or -CH<sub>2</sub>-N-(2-amino-2-deoxygluconic acid).

- 66. The pharmaceutical composition of Claim 61, wherein  $R^{24}$  is hydrogen and  $R^{26}$  is hydrogen or methyl.
- 67. The pharmaceutical composition of Claim 66, wherein R<sup>25</sup> is alkyl or substituted alkyl.
- 5 68. The pharmaceutical composition of Claim 67, wherein R<sup>25</sup> is isobutyl.
  - 69. The pharmaceutical composition of Claim 68, wherein  $R^{27}$  is hydrogen, alkyl, substituted alkyl or  $-C(O)R^d$ .
- 70. A pharmaceutical composition comprising a pharmaceuticallyacceptable carrier and a therapeutically effective amount of a compound shown in any of Tables I, II, III, IV, V or VI, or a pharmaceutically-acceptable salt thereof.
  - 71. A method of treating a mammal having a bacterial disease, the method comprising administering to the mammal a therapeutically effective amount of a pharmaceutical composition of Claim 36, 50 or 61.